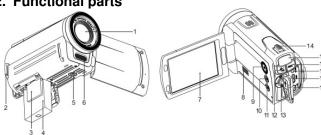


1. Key features of your camcorder

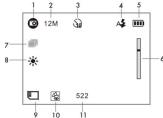
Full HD digital video camcorder – 1920x1080 up to 30fps HDTV HDMI high definition interface output 3.0" fine grade LTPS color LCD display
Slot for SD Memory card, support up to 32GB SD card capacity
Driver free for Windows 7 / Vista / XP and MAC 10.4.9 or above

2. Functional parts



Item	Part	Function		
1	Lens	Optical lens for Video & Picture taking.		
2	Strap Hook	For fixing hand strap.		
3	SD card slot	For inserting SD Card.		
4	Battery	A 3.7V Li-ion rechargeable battery provided.		
5	Tripod socket	For fixing the DV to tripod.		
6	Flash	Flash strobe activates when indoor or dark environment pictures taken. The best flash distance is within 5 feet (1.5m).		
7	LCD screen	LCD shows images, video clips, camera Settings and Menu.		
8	Speaker	Speaker for video playback		
9	Power Button	Pressing and hold the power button to turn on& off the unit. Or press the button once to set LCD display off, press again to display on.		
10	Playback button	Press button to enter the Playback PICTURE mode, press again switching to Playback VIDEO mode.		
11	Menu	Press to Set PICTURE / VIDEO recording options.		
12	Mode Button	Press this button to select mode: PICTURE taking or VIDEO recording.		
	UP / AF setting In MENU mode, push the key up for UP selection / In VIDEO PHOTO mode, push the key UP to enter AF mode setting.			
	DOWN / White balance	In MENU mode, push the key down for DOWN selection / In VIDEO or PHOTO mode, push the key DOWN to enter White Balance setting.		
13	LEFT / Flash	In MENU mode, push the key left for LEFT selection / In PHOTO mode, push the key LEFT for flash options selection.		
	RIGHT/ EV±	In MENU mode, push the key right for RIGHT selection / In VIDEO or PHOTO mode, push the key RIGHT to enter exposure value setting.		
	OK button	To confirm changes (OK) in menu mode.		
14	Zoom / Volume setup button	Zoom IN or OUT during recording mode./ Setting the volume in video playback mode.		
15	LED indicator	Red lightThe battery is recharging. Blue light the unit turned on.		
16	REC button	Press this button to take still PICTURE; to Start or Stop recording VIDEO clip,		
17	TV OUT socket	Use supplied TV cable for video and audio connection to standard TV.		
18	HDMI socket	Use supplied HDMI cable for HDTV connection.		
19	USB interface	For transferring images and video files to computer via USB cable. For connecting the AC Charger / charging battery		

3. Explanation of the status icons



Item	Function	Description
1	Recording mode	Photograph mode. Video mode.
2	Selected resolution	Photo-3MP, 5MP, 8MP, 12MP Video- Full HD, 1080P30, 720P30, WVGAP60, WVGAP30, VGA, QVGA
3	Self timer	On / Off
4	Flash indicator (PHOTO mode only)	Fill in flash: Flash will be always active regardless of scene brightness Auto Flash: The camera determines when the flash should be activated or not. No Flash: The flash is turned off.
5	Battery indicator	Battery is full Empty battery
6	Zoom indicator	Shows zoom range
7	Capture	Capture 1 / Capture 3
8	White balance	White balance selection.
9	SD card indication	The SD card is inserted and will be used as storage for PHOTO and VIDEO
10	AF setting mode	Full Normal Macro
11	Counter indicator	Shows available time for recording VIDEO Shows active recording VIDEO time Shows picture available in PHOTO mode

4. Details for camera setting

Quality	Super Fine(Default) / Fine /Normal	PHOTO quality setting	
	3M pixel resolution	2048 x 1536 pixels	
Size	5M pixel resolution	2592 x 1944 pixels	
	8M pixel resolution	3200 x 2400 pixels	
	12M pixel resolution	4000 x 3000 pixels	
Self-timer	On	Self-timer selected, 10 sec delay	
Sen-umer	Off	Turn off the self-timer, disable	
Capture	Capture 1 / Capture 3	Single or 3 continues photos selection	
VIDEO setting In video mode, p mode.		ect VIDEO,then press OK to enter video setup	
Quality	Super Fine(Default)/ Fine / Normal	VIDEO quality setting	
	Full HD	1920×1080 up to 30fps	
	1080P30	1440x1080, up to 30fps	
	720P30	1280x720, up to 30fps	
Resolution	WVGAP60	848x480, up to 60fps	
	WVGAP30	848x480, up to 30fps	
	VGA	640x480, up to 30fps	
	QVGA	320x240, up to 30fps	
Setup	QVGA	320x240, up to 30fps	
	node, press the MENU button ar OK to enter camera basic setup	nd select SETUP by pushing the Direction Key o options.	
In photo/video m	node, press the MENU button ar OK to enter camera basic setup	nd select SETUP by pushing the Direction Key options. American and Japanese TV format	
In photo/video m right, then press	node, press the MENU button ar OK to enter camera basic setup NTSC PAL	d select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format	
In photo/video m right, then press	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off	d select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off	
In photo/video m right, then press TV type	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min	d select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation	
In photo/video m right, then press	ode, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min	Ad select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 3 min if no operation	
In photo/video m right, then press TV type	node, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min	d select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation	
In photo/video mright, then press TV type Auto power off Time setup	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour / Minute	Add select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 3 min if no operation Auto power off in 5 min if no operation Setting the time on the image or video clips.	
In photo/video m right, then press TV type Auto power off	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour /	Ad select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 3 min if no operation Auto power off in 5 min if no operation	
In photo/video mright, then press TV type Auto power off Time setup	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour / Minute	Add select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 3 min if no operation Auto power off in 5 min if no operation Setting the time on the image or video clips	
In photo/video mright, then press TV type Auto power off Time setup Volume	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour / Minute 00 ~ 64 Yes / No Yes / No	Add select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 3 min if no operation Auto power off in 5 min if no operation Setting the time on the image or video clips. Setting the volume	
In photo/video might, then press TV type Auto power off Time setup Volume Default Setting	onde, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour / Minute 00 ~ 64 Yes / No	Ad select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 5 min if no operation Setting the time on the image or video clips. Setting the volume Refresh the default settings Format the SD card Select display language	
In photo/video might, then press TV type Auto power off Time setup Volume Default Setting Format	onde, press the MENU button ar OK to enter camera basic setur NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour / Minute 00 ~ 64 Yes / No Yes / No English / Deutsch / French //talian/Spanish / Portuguese / CHS / CHT/	Add select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 3 min if no operation Auto power off in 5 min if no operation Setting the time on the image or video clips. Setting the volume Refresh the default settings Format the SD card	
In photo/video might, then press TV type Auto power off Time setup Volume Default Setting Format Language	node, press the MENU button ar OK to enter camera basic setup NTSC PAL Off 1 min 3 min 5 min Year / Month / Day / Hour / Minute 00 ~ 64 Yes / No English / Deutsch / French / Italian/Spanish / Portuguese / CHS / CHT/ Russian Off / Date/ Time /	Ad select SETUP by pushing the Direction Key options. American and Japanese TV format European TV format Auto Power-Off off Auto power off in 1 min if no operation Auto power off in 5 min if no operation Setting the time on the image or video clips. Setting the volume Refresh the default settings Format the SD card Select display language In photo/video playback mode, the Date, Time or the date and time Show on the	

In photo/video mode, press the MENU button and select EFFECT by pushing the Direction Key right, then press OK to enter effect options.

Flicker	50Hz (Default) Set for European electricity frequency		
riickei	60Hz	Set for American electricity frequency	
Contrast Standard / Hard / Soft		Scene contrast setting options	
Sharpness Standard / Hard / Soft		Sharpness setting	
ISO Auto/100/200/400		Sensitivity select	
	Auto	Automatic white balance	
	Sunny	White balance selected for Sunny sky	
	Cloudy	White balance selected for cloudy sky	
White Balance	Fluorescent	White balance selected for fluorescent indoor light	
	Incandescent	White balance selected for tungsten indoor lighting	
EV Setting	0, +/-0.3 , +/-0.7, +/-1.0, +/-1.3, +/-1.7, +/-2.0	Level of exposure	
Metering	Center / Average / Spot	Metering setting	
AF Setting Full / Normal / Macro		AF setting mode	

Note: The camera will remain in the last setting when it is turned OFF and ON again

5. Using the camera

5.1 Battery installation and charging (included)

The battery is not fully charged at shipment and must be fully charged before any operation.

Release and open the battery door.

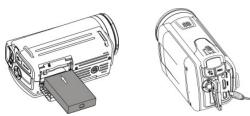
Install supplied 3.7V Li-ion battery into the battery compartment Align battery terminals with metal connectors inside compartment.

Close the battery door.

Open connectors' cover and connect supplied AC charger to camera USB port.

Turn the camera OFF and plug charger into wall power outlet.

A red LED indicator will light up during charging, it will turn OFF when completed.



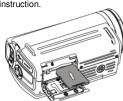
5.2 Inserting a memory card (not included)

You must insert SD Card (not supplied) to record and store your VIDEO and PICTURES. Follow the instruction for inserting a SD Memory card:

1. Turn OFF the camera.
2. Insert the SD card into the SD card slot, gently press it down until card is latched. Make sure that the SD card is not in LOCK position (see tiny slider on card's side).

Note: Do not force the card into the slot; forcing may damage camera and the SD memory card. Align SD card position (as marked) and try again.

Note: The SD memory card must be formatted before taking photographs. See the following instruction.



5.3 Formatting the SD memory card

1. In photo/video mode, press the MENU button and select SETUP, then press OK to enter camera basic setup options.

2. Select FORMAT by pushing the Direction Key DOWN and press OK. Select YES by pushing the Direction Key DOWN.

3. Press OK to confirm formatting the SD card.

Note: During formatting of the SD card, all data, pictures & video (if present) will be erased; make sure you save your valuable records before formatting the memory.

Remember, all your records will be erased during formatting!

5.4 Setting the resolution

- VIDEO recording mode

 1. Press the MENU button in video mode, Select VIDEO and press OK to enter options
- selection.

 2. Select RESOLUTION by pushing the Direction Key DOWN, then press OK to enter resolution
- Select RESOLUTION by pushing the Direction Key DOWN, then press OK to enter resolution selection.

 Select desired resolution by pushing the Direction Key UP or DOWN;

 Full HD (1920-1080), 1080P30(1440x1080), 720P30 (1280 x 720), WVGAP60 (848 x 480)

 WVGAP30 (848 x 480), VGA (640 x 480), QVGA(320 x 240)

 then press OK to confirm setting.

- PICTURE taking mode
 1. Press the MENU button in photo mode, Select PHOTO and press OK to enter option selection.
- Select the SIZE by pushing the Direction Key DOWN, press OK to enter resolution selection. Select desired resolution by pushing the Direction Key UP or DOWN;
- 3M (2048 x 1536), 5M (2592 x 1944), 8M (3200 x 2400),12M (4000 x 3000) then press OK to confirm setting.

5.5 Taking video or pictures

- Open screen / turn on your camera.
 Press the MODE button to select PICTURES () or VIDEO recording mode()
- Use the LCD screen as a viewfinder composing the scene.

 Press the REC button for taking a PICTURE, or press this button to start / stop VIDEO

Note: 1. Keep camera and the object steady when making records to avoid blurry images.

2. Max video file size is 4GB.The unit will stop recording automatically.

5.6 Zoom IN and OUT

Your camera can zoom in up to 20 X (5 X optical zoom and 4 X digital zoom). Push the zoom button LEFT/RIGHT for selecting desired scene / view. Note the zoom bar in screen showing the zooming range.

Danaludian	Digital zoom		
Resolution	Live view	Connected to TV (HDMI)	
QVGA 30fps	Support	Support	
VGA 30fps	Support	Support	
WVGA 30fps	Support	Support	
WVGA 60fps	Support	Support	
720P 30fps	Support	Not Support	
1080P 30fps	Support	Not Support	
Full HD 30fps	Not Support	Not Support	

5.7 Playback PICTURES and VIDEO clips

- Press the PLAYBACK button (D) once to enter PICTURES Playback mode, press it again to enter VIDEO Playback mode (PHOTO / VIDEO icon will be showed on top of screen). Push the Direction Key UP / DOWN / LEFT / RIGHT to select desired PICTURE / VIDEO.
- Press OK to confirm selected VIDEO or see full size PICTURE.
- When viewing a photo, you may push [11] (left) or (1) (right) to zoom out or in the photo; Press OK again for starting the slide show.
- When viewing video clips, Press OK to start playing the video and press again to pause. When playing the video, push the Direction Key RIGHT / LEFT for fast forward or rewind the

5.8 Delete photographs and video clips

- Press the PLAYBACK (**D**) button once to enter the PHOTO playback mode, or press again to enter VIDEO clip playback mode.

- Select the photo or video to delete.

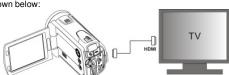
 Press the MENU button to enter the delete mode.

 Push the Direction Key LEFT or RIGHT for select delete current image or delete all images and press OK to confirm.
- Press the MODE button to exit.

6. Connecting the HD DV camera

6.1 Connect to TV

When you wish to view on High Definition (HD) TV, please use supplied HDMI cable and connect as shown below:

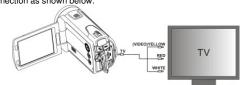


Set your HDTV to corresponding HDMI INPUT (review TV Manual if needed) and use camera buttons in the same way as you use camera during PLAYBACK mode.

Enjoy watching pictures and HD VIDEO on large HDTV screen!

You may also view PICTURES and recorded VIDEO clips on typical standard TV set. Make

connection as shown below



6.2 Connect to Personal computer

You may also connect your HD camcorder to PC for viewing PICTURES and VIDEOS on the computer monitor as well as expanding your system to enjoy a wide range of functions. You may edit your videos or images and send them to friends over the Internet or even post your own VIDEOS on YouTube! Millions of people may view them!

Upload to YouTube

Please install MEDIAIMPRESSION. This software enables upload to YouTube. This will take you directly to YouTube website for easy upload of videos.

- Installing DirectX and ArcSoft MediaImpression

 1. Please insert provided CD into computer's CD ROM and follow screen prompts to install DirectX and MediaImpression in your computer

 2. Use USB cable to connect HD camcorder to computer
- Open My Computer> Removable Disk and select image or video file Click to open and watch High definition video played back.

You may also install QuickTime (not bundled on supplied CD) or other suitable programs for best

video playback.

HD Video data is very complex; use Win XP, Vista, Mac9.x and newest computers – older and slower computers may not play your HD Video clips so well.

7. Remote functional parts



Item	Part	Function
1	Playback button	Press this key to enter Playback PICTURE mode, press again switching to Playback VIDEO mode.
2	Mode Button	Press this key to select mode: PICTURE taking or VIDEO recording.
3	UP / AF setting	In MENU mode, push the key up for UP selection / In VIDEO or PHOTO mode, push the key UP to enter AF mode setting.
4	MENU	Press to Set PICTURE / VIDEO recording options.
5	LEFT / Flash	In MENU mode, push the key left for LEFT selection / In PHOTO mode, push the key LEFT for flash options selection.
6	DOWN / White balance	In MENU mode, push the key down for DOWN selection / In VIDEO or PHOTO mode, push the key DOWN to enter White Balance setting.
7	Delete	Press it to delete the photo or video clip in playback mode.
8	Backward	During video playing, press the button for fast backward, press this key again to return normal playback.
9	VOL+/ ZOOM IN	Press this key to increase volume during video clip playback. In DC playback, PICTURE taking or video recording mode, press the key to zoom in the picture
10	VOL-/ ZOOM OUT	Press this key to decrease volume during video clip playback. In DC playback, PICTURE taking or video recording mode, press the key to zoom out the picture
11	ENTER	Selecting and setup confirm
12	RIGHT/ EV±	In MENU mode, push the key right for RIGHT selection / In VIDEO or PHOTO mode, push the key RIGHT to enter exposure value setting.
13	Stop	Press the key to stop during playing
14	Play/Pause	During playing, press the key to pause, Press this key again to play continuously.
15	Forward	During video playing, press the button for fast forward, press this key again to return normal playback

8. Specification

Image Sensor	5.0 Mega pixel CMOS sensor		
		Full HD (1920×1080) up to 30fps	
		1080P30 (1440x1080), up to 30fps	
		720P30 (1280x720), up to 30fps	
	VIDEO	WVGAP60 (848x480), up to 60fps	
		WVGAP30 (848x480), up to 30fps	
Image resolution		VGA (640x480), up to 30fps	
		QVGA (320x240), up to 30fps	
		12 Mega pixel (4000x3000)	
	PICTURES	8.0 Mega pixel (3200x2400)	
	PICTURES	5.0 Mega pixel (2592x1944)	
		3.0 Mega pixel (2048x1536)	
Lens	F/2.8 f=8.5mm		
Focus range	Macro mode: $3\text{cm} \sim 1\text{M}(\text{Wide},3\text{cm} \sim 20\text{cm}; \text{Tele}, 0.8\text{M} \sim 1\text{M});$ Normal mode: $20\text{cm} \sim \infty(\text{Wide},20\text{cm} \sim \infty; \text{Tele}, 1\text{M} \sim \infty);$ Full mode: $3\text{cm} \sim \infty(\text{Wide},3\text{cm} \sim \infty; \text{Tele}, 0.8\text{M} \sim \infty);$		
Zoom	Zoom in up to 20 times (5 X Optical Zoom and 4 X digital Zoom)		
LCD display	3.0" fine grade LTPS color LCD display		
White balance	Auto / Sunny / Cloudy / Fluorescent / Incandescent		
VIDEO format	MOV		
External memory card	Support up to 32GB SD memory card (card is required to store video & pictures, class 4 or above SD card is recommended)		
File format	VIDEO: MOV ; PICTURE: JPEG		
Self timer	10 second options		
PC interface	USB 2.0 port		

Power source	3.7V 1700mAh Li-ion rechargeable battery (supplied)
TV-out	High Definition VIDEO: HDMI Standard TV (NTSC or PAL) output: AV standard port

9. PC system min requirement

Operating System	Windows 7 / Vista / XP Mac 10.4.9 or above
CPU	Pentium III/ 1GHz (minimum) Pentium 4 / 3.0GHz or above processor (recommended)
RAM	At least 256MB (minimum) 1GB (recommended)
Interface	USB available port
Display Card	nVidia Geforce 7600 or ATI X 1600 or above

10. Troubleshooting

Problem	Cause	Solution
Cannot turn ON the camcorder	Low battery power. Battery not inserted properly.	Charge the battery Check that battery correctly aligned when installed
VIDEO or PICTURES cannot be saved when you are taking them.	SD card has not been installed The SD card has not been formatted properly. Memory is full. Display shows 'MEMORY FULL'.	Install SD card Format the SD card at SETUP mode of the camera. Please refer to section 5.3. Download the pictures and videos from the camera to the computer to create storage space.
Computer does not recognize your camcorder when connected. (You cannot find removable disk)	Connection failure.	Make sure all cable connections are secured. Restart the computer if necessary.
The battery life is very short.	Incorrect or old, used up, battery	Replace with new 3.7V Li-ion rechargeable battery
Blurry images	The HD camera is not held steady during recording The lens of HD DV camera is dirty. Incorrect Lens focus setting	Hold the HD DV camera steady when taking pictures, wait to hear the beep sound Clean the lens with soft dry cloth. Set the FullMacro / Normal lens focus according to the proper camera to subject distance. Use "Normal" setting as appropriate for typical situations.

